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Hazardous Waste Management System: General Standards Applicable to Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities; and Hazardous Waste Permit Program

(U.S.) Environmental Protection Agency
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BACKGROUND DOCUMENT NO. 1

HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL; STANDARDS APPLICABLE TO OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES; AND HAZARDOUS WASTE PERMIT PROGRAM (40 CFR 260, 264, and 122)

Permitting of Land Disposal Facilities: Surface Impoundments

This document (ms. 1941.34) provides background information on EPA's proposed regulations for land disposal of hazardous waste

U.S. ENVIRONMENTAL PROTECTION AGENCY
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Provides background information used in developing performance standards for hazardous waste land disposal facilities. The standards were published in EPA's proposed regulations on February 5, 1981.

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Permitting of Land Disposal Facilities

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INTRODUCTION

General requirements for surface impoundments were promulgated at 46 FR 2868 on 12 January 1980. A background document "Subpart K - General Standards for Surface Impoundments Used for Treatment or Storage" dated 29 December 1980 was prepared to support that regulation.

At the time of that promulgation, amendment of the regulation was anticipated in conjunction with the promulgation of the generic regulations for land disposal facilities (See the Comment to §264.220 - Applicability). This proposed regulation implements that anticipated amendment to provide requirements applicable to surface impoundments which are not used solely for storage or storage and treatment; i.e., surface impoundments from which discharge into the land may occur and be found acceptable based on the anlysis requirements of the generic land disposal facility regulations. This includes all surface impoundments which are closed with waste left in place.

I. NEED FOR REGULATION

The need for regulation of surface impoundments has been covered in the background document "Subpart K - General Standards for Surface Impoundments Used for Treatment or Storage" dated 29 December 1980.

II. ANALYSIS OF STANDARDS

1. Applicability - §§264.220

A. Proposed Regulations and Rationale

See the 29 December 1980 Background Document.

B. Summary of Comments

See the 29 December 1980 Background Document.

C. Discussion

The comment to this section of the regulation provided notice that the regulatory amendment being proposed in this regulation was anticipated. The regulation merely provides that this comment be deleted since the anticipated action will be taken when these regulations are finalized.

D. Regulatory Language

Section 264.220 is amended by removing the Comment.

2. General design requirements - §264.221

A. Proposed Regulations and Rationale

See the 29 December 1980 Background Document.

B. Summary of Comments

See the 29 December 1980 Background Document.

C. Discussion

The proposed amendment, in effect, separates paragraph (c) of the existing regulation into two parts. New paragraph (c) adds the work direct to the language which prevented discharge to surface waters to clarify that overland discharge to surface waters will not be permitted, but that leachate discharge to surface waters may be found acceptable and permitted if no adverse effects will be caused. New paragraph (d) explicitly retains all the requirements of the 12 January 1980 regulation for those surface impoundments which are used solely for storage or storage and treatment, and new paragraphs (e) and (f) retain the requirements applicable to those surface impoundments which are designed and constructed with

dikes or leachate detection, collection, and removal systems. The statement in new paragraph (d) that surface impoundments used solely for storage or storage and treatment are exempt from the requirements of Subpart F is added since the implicit effect of the amendment read in conjunction with the generic land disposal facility regulations (See §264.19 - Land disposal facilities) is that surface impoundments are land disposal facilities subject to all of the requirements being proposed. All land disposal facilities are subject to the requirements of Subpart F - Groundwater and air emission monitoring.

D. Regulatory Language

In §264.221, paragraph (c) is revised, paragraph (d) is redesignated as paragraph (e), paragraph (e) is redesignated as paragraph (f), and a new paragraph (d) is added to read as follows:

§264.221 General design requirements.

* * * * *

(c) A surface impoundment must be designed to prevent direct discharge to surface water (except discharges authorized by an NPDES permit) during the life of the impoundment.

(d) A surface impoundment which is designed to be used solely for storage or storage and treatment and to prevent discharge into the land and ground water, and to surface water (except discharges authorized by an NPDES permit) during the life of the impoundment;

(1) Must have a containment system which complies with §264.223(b); and

(2) Is exempt from the requirements of Subpart F.

(e) Dikes must be designed with sufficient structural integrity to prevent massive failure without dependence on any liner system included in the surface impoundment design.

(f) A leachate detection, collection, and removal system must be designed so that liquid will flow freely from the collection system to prevent the creation of pressure head within the collection system in excess of that necessary to cause the liquid to flow freely.

3. Closure and Post-closure - §264.228

A. Proposed Regulation and Rationale

See the 29 December 1980 Background Document.

B. Summary of Comments

In the 29 December 1980 Background Document it was stated that "most of the comments recieved on proposed §250.45-3e are applicable to surface impoundments which discharge into the land, and will, therefore, be addressed when regulations applicable to impoundments which may discharge are promulgated". This was the apparent intent when that document was written, however upon examination of the comments received and discussed it was found that all applicable comments regarding surface impoundments which discharge into the land due to closure with waste left in place had been addressed in the 28 April 1980 background document "Final Interim Status Standards for Surface Impoundments" (See pages 66-79).

C. Discussion

This amendment provides that a surface impoundment may be closed with waste in place as a land disposal facility. The title has been changed to add the phrase "and post-closure" as all the

requirements of Subparts F,G, and H apply to land disposal facilities with reference to post-closure requirements.

The Comment to the existing regulations has been deleted.

D. Regulatory Language

Section 264.228 is revised to read as follows:

§264.228 Closure and post-closure.

Unless otherwise authorized in the permit for the facility, at closure, all hazardous waste and hazardous waste residues must be removed from the impoundment and managed as a hazardous waste in accordance with all applicable requirements of Parts 262 - 266 of this chapter. Any component of the containment system or any appurtenant structures or equipment (e.g., discharge platforms and pipes, and baffles, skimmers, aerators, or other equipment) containing or contaminated with hazardous waste or hazardous waste residues must be decontaminated; or removed and also managed as a hazardous waste.